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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

### CALIFORNIA, USA ONLY

The Lithium battery adopted on this motherboard contains Perchlorate, a toxic substance controlled in Perchlorate Best Management Practices (BMP) regulations passed by the California Legislature. When you discard the Lithium battery in California, USA, please follow the related regulations in advance.

"Perchlorate Material-special handling may apply, see  
[www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)"

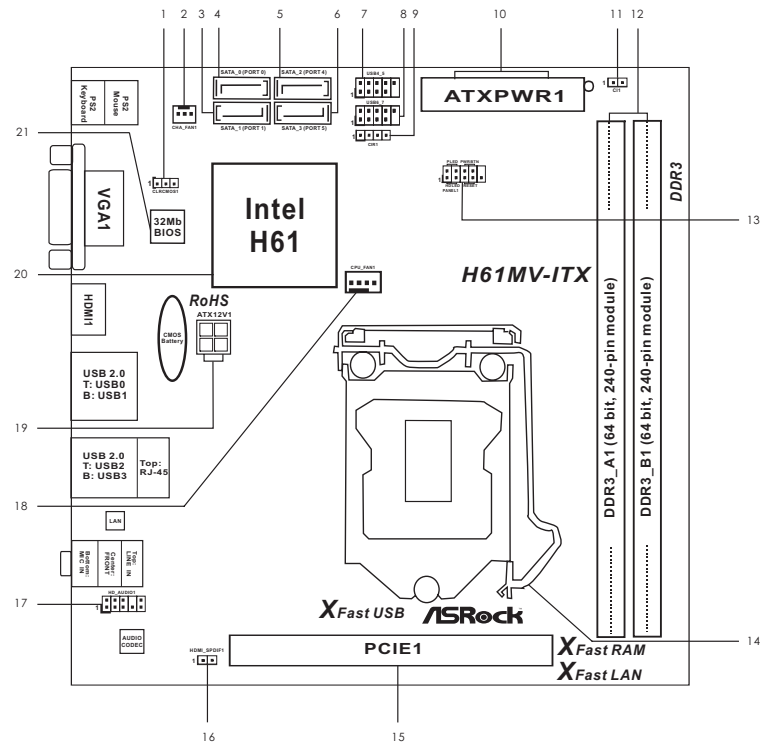
**ASRock Website:** <http://www.asrock.com>



English

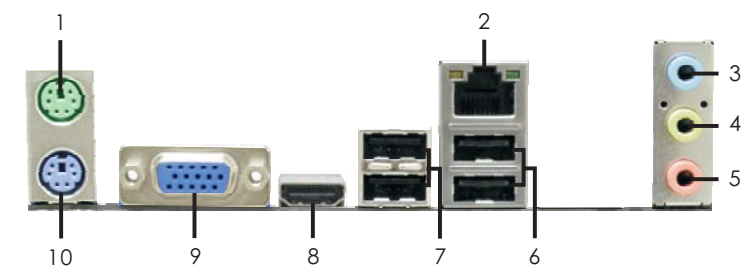
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## Motherboard Layout



- |    |  |    |   |
|----|--|----|---|
| 1  | Clear CMOS Jumper (CLRCMOS1)           | 12 | 2 x 240-pin DDR3 DIMM Slots<br>(Dual Channel: DDR3_A1, DDR3_B1) |
| 2  | Chassis Fan Connector (CHA_FAN1)       | 13 | System Panel Header (PANEL1)                                    |
| 3  | SATA2 Connector (SATA_1 (PORT 1))      | 14 | 1155-Pin CPU Socket   |
| 4  | SATA2 Connector (SATA_0 (PORT 0))      | 15 | PCI Express 3.0 x16 Slot (PCIE1)                                |
| 5  | SATA2 Connector (SATA_2 (PORT 4))      | 16 | HDMI_SPDIF Header (HDMI_SPDIF1)                                 |
| 6  | SATA2 Connector (SATA_3 (PORT 5))      | 17 | Front Panel Audio Header (HD_AUDIO1)                            |
| 7  | USB 2.0 Header (USB4_5)                | 18 | CPU Fan Connector (CPU_FAN1)                                    |
| 8  | USB 2.0 Header (USB6_7)                | 19 | ATX 12V Power Connector (ATX12V1)                               |
| 9  | Consumer Infrared Module Header (CIR1) | 20 | Intel H61 Chipset   |
| 10 | ATX 12V Power Connector (ATX12V1)      | 21 | 32Mb SPI Flash  |
| 11 | Chassis Intrusion Header (CI1)         |    |   |

# I/O Panel



- 1

PS/2 Mouse Port (Green)
- \* 2

LAN RJ-45 Port
- 3

Line In (Light Blue)
- \*\* 4

Front Speaker (Lime)
- 5

Microphone (Pink)
- 6

USB 2.0 Ports (USB23)
- 7

USB 2.0 Ports (USB01)
- 8


HDMI Port
- 9

D-Sub Port
- 10

PS/2 Keyboard Port (Purple)


\* There are two LED next to the LAN port. Please refer to the table below for the LAN port LED indications.

## LAN Port LED Indications

Activity/Link LED		SPEED LED		<div>ACT/LINK LED</div> <div>SPEED LED</div> <div></div> <div>LAN Port</div>
Status	Description	Status	Description	
Off	No Link	Off	10Mbps connection	
Blinking	Data Activity	Orange	100Mbps connection	
On	Link	Green	1Gbps connection	

\*\* To enable Multi-Streaming function, you need to connect a front panel audio cable to the front panel audio header. Please refer to below steps for the software setting of Multi-Streaming.

For Windows® XP:

After restarting your computer, you will find “Mixer” tool on your system. Please select “Mixer ToolBox”  , click “Enable playback multi-streaming”, and click “ok”. Choose “2CH” or

“4CH” and then you are allowed to select “Realtek HDA Primary output” to use Rear Speaker and Front Speaker, or select “Realtek HDA Audio 2nd output” to use front panel audio. Then reboot your system.

For Windows® 8 / 7 / Vista™:

After restarting your computer, please double-click “Realtek HD Audio Manager” on the system tray. Set “Speaker Configuration” to “Quadraphonic” or “Stereo”. Click “Device advanced settings”, choose “Make front and rear output devices playbacks two different audio streams simultaneously”, and click “ok”. Then reboot your system.

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## 1. Introduction

Thank you for purchasing ASRock **H61MV-ITX** motherboard, a reliable motherboard produced under ASRock's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

This Quick Installation Guide contains introduction of the motherboard and step-by-step installation guide. More detailed information of the motherboard can be found in the user manual presented in the Support CD.



Because the motherboard specifications and the BIOS software might be updated, the content of this manual will be subject to change without notice. In case any modifications of this manual occur, the updated version will be available on ASRock website without further notice. You may find the latest VGA cards and CPU support lists on ASRock website as well. ASRock website <http://www.asrock.com>  
If you require technical support related to this motherboard, please visit our website for specific information about the model you are using.  
[www.asrock.com/support/index.asp](http://www.asrock.com/support/index.asp)

### 1.1 Package Contents

ASRock **H61MV-ITX** Motherboard (Mini-ITX Form Factor)  
ASRock **H61MV-ITX** Quick Installation Guide  
ASRock **H61MV-ITX** Support CD  
2 x Serial ATA (SATA) Data Cables (Optional)  
1 x I/O Panel Shield



#### **ASRock Reminds You...**

To get better performance in Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit, it is recommended to set the BIOS option in Storage Configuration to AHCI mode. For the BIOS setup, please refer to the "User Manual" in our support CD for details.

## 1.2 Specifications

<b>Platform</b>	<ul style="list-style-type: none"> <li>- Mini-ITX Form Factor</li> <li>- All Solid Capacitor design</li> </ul>
<b>CPU</b>	<ul style="list-style-type: none"> <li>- Supports 3<sup>rd</sup> and 2<sup>nd</sup> Generation Intel® Core™ i7 / i5 / i3 in LGA1155 Package</li> <li>- Supports Intel® Turbo Boost 2.0 Technology</li> <li>- Supports K-Series unlocked CPU</li> </ul>
<b>Chipset</b>	<ul style="list-style-type: none"> <li>- Intel® H61</li> <li>- Supports Intel® Rapid Start Technology and Smart Connect Technology</li> </ul>
<b>Memory</b>	<ul style="list-style-type: none"> <li>- Dual Channel DDR3 Memory Technology</li> <li>- 2 x DDR3 DIMM slots</li> <li>- Supports DDR3 1600/1333/1066 non-ECC, un-buffered memory (DDR3 1600 with Intel® Ivy Bridge CPU, DDR3 1333 with Intel® Sandy Bridge CPU)</li> <li>- Max. capacity of system memory: 16GB (see <b>CAUTION 1</b>)</li> <li>- Supports Intel® Extreme Memory Profile (XMP) 1.3 / 1.2 with Intel® Ivy Bridge CPU</li> </ul>
<b>Expansion Slot</b>	<ul style="list-style-type: none"> <li>- 1 x PCI Express 3.0 x16 slot (PCI-E1 @ x16 mode)</li> <li>* PCIe 3.0 is only supported with Intel® Ivy Bridge CPU. With Intel® Sandy Bridge CPU, it only supports PCIe 2.0.</li> </ul>
<b>Graphics</b>	<ul style="list-style-type: none"> <li>* Intel® HD Graphics Built-in Visuals and the VGA outputs can be supported only with processors which are GPU integrated.</li> <li>- Supports Intel® HD Graphics Built-in Visuals: Intel® Quick Sync Video 2.0, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 2500/4000 with Intel® Ivy Bridge CPU</li> <li>- Supports Intel® HD Graphics Built-in Visuals: Intel® Quick Sync Video, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® HD Graphics 2000/3000, Intel® Advanced Vector Extensions (AVX) with Intel® Sandy Bridge CPU</li> <li>- Pixel Shader 5.0, DirectX 11 with Intel® Ivy Bridge CPU. Pixel Shader 4.1, DirectX 10.1 with Intel® Sandy Bridge CPU.</li> <li>- Max. shared memory 1760MB with Intel® Ivy Bridge CPU. Max. shared memory 1759MB with Intel® Sandy Bridge CPU.</li> <li>- Dual VGA Output: support HDMI and D-Sub ports by independent display controllers</li> </ul>

	<ul style="list-style-type: none"> <li>- Supports HDMI 1.4a Technology with max. resolution up to 1920x1200 @ 60Hz</li> <li>- Supports D-Sub with max. resolution up to 2048x1536 @ 75Hz</li> <li>- Supports Auto Lip Sync, xvYCC and HBR (High Bit Rate Audio) with HDMI (Compliant HDMI monitor is required) (see <b>CAUTION 2</b>)</li> <li>- Supports HDCP function with HDMI port</li> <li>- Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback with HDMI port</li> </ul>
<b>Audio</b>	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- Supports Wake-On-LAN</li> <li>- Supports LAN Cable Detection</li> <li>- Supports Energy Efficient Ethernet 802.3az</li> <li>- Supports PXE</li> </ul>
<b>Rear Panel I/O</b>	I/O Panel <ul style="list-style-type: none"> <li>- 1 x PS/2 Mouse Port</li> <li>- 1 x PS/2 Keyboard Port</li> <li>- 1 x D-Sub Port</li> <li>- 1 x HDMI Port</li> <li>- 4 x Ready-to-Use USB 2.0 Ports</li> <li>- 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED)</li> <li>- HD Audio Jack: Line in / Front Speaker / Microphone</li> </ul>
<b>Connector</b>	<ul style="list-style-type: none"> <li>- 4 x SATA2 3.0 Gb/s connectors, support NCQ, AHCI and Hot Plug functions</li> <li>- 1 x CIR header</li> <li>- 1 x HDMI_SPDIF header</li> <li>- 1 x Chassis Intrusion header</li> <li>- 1 x CPU Fan connectors (4-pin)</li> <li>- 1 x Chassis Fan connector (3-pin)</li> <li>- 24 pin ATX power connector</li> <li>- 4 pin 12V power connector</li> <li>- Front panel audio connector</li> <li>- 2 x USB 2.0 headers (support 4 USB 2.0 ports)</li> </ul>
<b>BIOS Feature</b>	<ul style="list-style-type: none"> <li>- 32Mb AMI UEFI Legal BIOS with GUI support</li> <li>- Supports "Plug and Play"</li> <li>- ACPI 1.1 Compliance Wake Up Events</li> <li>- Supports jumperfree</li> </ul>

	- SMBIOS 2.3.1 Support
<b>Support CD</b>	- Drivers, Utilities, AntiVirus Software (Trial Version), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser and Toolbar
<b>Hardware Monitor</b>	<ul style="list-style-type: none"> <li>- CPU Temperature Sensing</li> <li>- Chassis Temperature Sensing</li> <li>- CPU Fan Tachometer</li> <li>- Chassis Fan Tachometer</li> <li>- CPU Quiet Fan (Allow Chassis Fan Speed Auto-Adjust by CPU Temperature)</li> <li>- CPU Fan Multi-Speed Control</li> <li>- CASE OPEN detection</li> <li>- Voltage Monitoring: +12V, +5V, +3.3V, CPU Vcore</li> </ul>
<b>OS</b>	- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit compliant
<b>Certifications</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- ErP/EuP Ready (ErP/EuP ready power supply is required)</li> </ul>

\* For detailed product information, please visit our website: <http://www.asrock.com>

#### WARNING

Please realize that there is a certain risk involved with overclocking, including adjusting the setting in the BIOS, applying Untied Overclocking Technology, or using third-party overclocking tools. Overclocking may affect your system's stability, or even cause damage to the components and devices of your system. It should be done at your own risk and expense. We are not responsible for possible damage caused by overclocking.

#### CAUTION!

1. Due to the operating system limitation, the actual memory size may be less than 4GB for the reservation for system usage under Windows® 8 / 7 / Vista™ / XP. For Windows® OS with 64-bit CPU, there is no such limitation. You can use ASRock XFast RAM to utilize the memory that Windows® cannot use.
2. xvYCC is only supported under Windows® 8 64-bit / 8 / 7 64-bit / 7. HBR is supported under Windows® 8 64-bit / 8 / 7 64-bit / 7 / Vista™ 64-bit / Vista™.

English

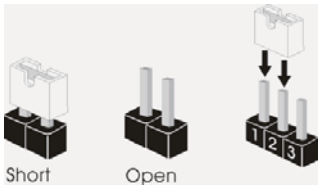
ASRock motherboard is equipped with pin headers with obvious colors which indicate you to recognize the crucial headers more easily. Please refer to below illustrations for the pin definition of onboard headers. If you want to have more information about the usage of these headers, please refer to "Jumpers Setup" and "Onboard Headers and Connectors" for details.





1.4 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on pins, the jumper is "Short". If no jumper cap is placed on pins, the jumper is "Open". The illustration shows a 3-pin jumper whose pin1 and pin2 are "Short" when jumper cap is placed on these 2 pins.



Jumper	Setting		Description
Clear CMOS Jumper (CLR_CMOS1) (see p.2, No. 1)	1_2	2_3	
	Default	Clear CMOS	

Note: CLR\_CMOS1 allows you to clear the data in CMOS. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord from the power supply. After waiting for 15 seconds, use a jumper cap to short pin2 and pin3 on CLR\_CMOS1 for 5 seconds. However, please do not clear the CMOS right after you update the BIOS. If you need to clear the CMOS when you just finish updating the BIOS, you must boot up the system first, and then shut it down before you do the clear-CMOS action. Please be noted that the password, date, time and user default profile will be cleared only if the CMOS battery is removed.



If you clear the CMOS, the case open may be detected. Please adjust the BIOS option "Clear Status" to clear the record of previous chassis intrusion status.

## 1.5 Onboard Headers and Connectors



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage of the motherboard!

### Serial ATA2 Connectors

(SATA\_0 (PORT 0):

see p.2, No. 4)

(SATA\_1 (PORT 1):

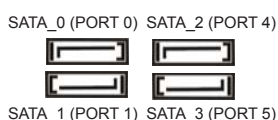
see p.2, No. 3)

(SATA\_2 (PORT 4):

see p.2, No. 5)

(SATA\_3 (PORT 5):

see p.2, No. 6)



These four Serial ATA2

(SATA2) connectors support SATA data cables for internal storage devices. The current SATA2 interface allows up to 3.0 Gb/s data transfer rate.

### Serial ATA (SATA) Data Cable (Optional)

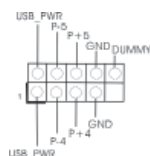


Either end of the SATA data cable can be connected to the SATA / SATA2 hard disk or the SATA2 connector on this motherboard.

### USB 2.0 Headers

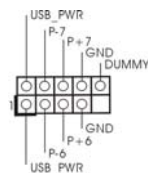
(9-pin USB4\_5)

(see p.2 No. 7)



(9-pin USB6\_7)

(see p.2 No. 8)



Besides four default USB 2.0 ports on the I/O panel, there are two USB 2.0 headers on this motherboard. Each USB 2.0 header can support two USB 2.0 ports.

### Consumer Infrared Module Header

(4-pin CIR1)

(see p.2 No. 9)

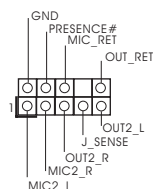


This header can be used to connect the remote controller receiver.

### Front Panel Audio Header

(9-pin HD\_AUDIO1)

(see p.2 No. 17)



This is an interface for front panel audio cable that allows convenient connection and control of audio devices.



1. High Definition Audio supports Jack Sensing, but the panel wire on the chassis must support HDA to function correctly. Please follow the instruction in our manual and chassis manual to install your system.
2. If you use AC'97 audio panel, please install it to the front panel audio header as below:
  - A. Connect Mic\_IN (MIC) to MIC2\_L.
  - B. Connect Audio\_R (RIN) to OUT2\_R and Audio\_L (LIN) to OUT2\_L.
  - C. Connect Ground (GND) to Ground (GND).
  - D. MIC\_RET and OUT\_RET are for HD audio panel only. You don't need to connect them for AC'97 audio panel.
  - E. To activate the front mic.

For Windows® XP / XP 64-bit OS:

Select "Mixer". Select "Recorder". Then click "FrontMic".

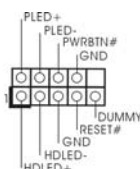
For Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:

Go to the "FrontMic" Tab in the Realtek Control panel. Adjust "Recording Volume".

### System Panel Header

(9-pin PANEL1)

(see p.2 No. 13)



This header accommodates several system front panel functions.



Connect the power switch, reset switch and system status indicator on the chassis to this header according to the pin assignments below. Note the positive and negative pins before connecting the cables.

#### **PWRBTN (Power Switch):**

Connect to the power switch on the chassis front panel. You may configure the way to turn off your system using the power switch.

#### **RESET (Reset Switch):**

Connect to the reset switch on the chassis front panel. Press the reset switch to restart the computer if the computer freezes and fails to perform a normal restart.

English

**PLED (System Power LED):**

Connect to the power status indicator on the chassis front panel. The LED is on when the system is operating. The LED keeps blinking when the system is in S1 sleep state. The LED is off when the system is in S3/S4 sleep state or powered off (S5).

**HDLED (Hard Drive Activity LED):**

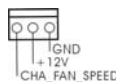
Connect to the hard drive activity LED on the chassis front panel. The LED is on when the hard drive is reading or writing data.

The front panel design may differ by chassis. A front panel module mainly consists of power switch, reset switch, power LED, hard drive activity LED, speaker and etc. When connecting your chassis front panel module to this header, make sure the wire assignments and the pin assignments are matched correctly.

**Chassis Fan Connector**

(3-pin CHA\_FAN1)

(see p.2 No. 2)

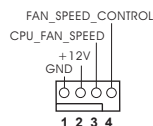


Please connect the fan cables to the fan connectors and match the black wire to the ground pin.

**CPU Fan Connectors**

(4-pin CPU\_FAN1)

(see p.2 No. 18)



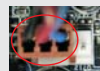
Please connect the CPU fan cable to the connector and match the black wire to the ground pin.



Though this motherboard provides 4-Pin CPU fan (Quiet Fan) support, the 3-Pin CPU fan still can work successfully even without the fan speed control function. If you plan to connect the 3-Pin CPU fan to the CPU fan connector on this motherboard, please connect it to Pin 1-3.

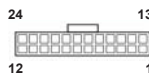
Pin 1-3 Connected

3-Pin Fan Installation

**ATX Power Connector**

(24-pin ATXPWR1)

(see p.2 No. 10)

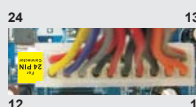


Please connect an ATX power supply to this connector.



Though this motherboard provides 24-pin ATX power connector, it can still work if you adopt a traditional 20-pin ATX power supply. To use the 20-pin ATX power supply, please plug your power supply along with Pin 1 and Pin 13.

20-Pin ATX Power Supply Installation



#### ATX 12V Power Connector

(4-pin ATX12V1)  
(see p.2 No. 19)



Please connect an ATX 12V power supply to this connector.

#### HDMI\_SPDIF Header

(2-pin HDMI\_SPDIF1)  
(see p.2 No. 16)



HDMI\_SPDIF header, providing SPDIF audio output to HDMI VGA card, allows the system to connect HDMI Digital TV/projector/LCD devices. Please connect the HDMI\_SPDIF connector of HDMI VGA card to this header.

#### Chassis Intrusion Header

(2-pin CI1)  
(see p.2, No. 11)



This motherboard supports CASE OPEN detection feature that detects if the chassis cover has been removed. This feature requires a chassis with chassis intrusion detection design.

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## **2. BIOS Information**

The Flash Memory on the motherboard stores BIOS Setup Utility. When you start up the computer, please press <F2> or <Del> during the Power-On-Self-Test (POST) to enter BIOS Setup utility; otherwise, POST continues with its test routines. If you wish to enter BIOS Setup after POST, please restart the system by pressing <Ctl> + <Alt> + <Delete>, or pressing the reset button on the system chassis. The BIOS Setup program is designed to be user-friendly. It is a menu-driven program, which allows you to scroll through its various sub-menus and to select among the pre-determined choices. For the detailed information about BIOS Setup, please refer to the User Manual (PDF file) contained in the Support CD.

## **3. Software Support CD information**

This motherboard supports various Microsoft® Windows® operating systems: 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit. The Support CD that came with the motherboard contains necessary drivers and useful utilities that will enhance motherboard features. To begin using the Support CD, insert the CD into your CD-ROM drive. It will display the Main Menu automatically if "AUTORUN" is enabled in your computer. If the Main Menu does not appear automatically, locate and double-click on the file "ASSETUP.EXE" from the BIN folder in the Support CD to display the menus.

## Spezifikationen

<b>Plattform</b>	<ul style="list-style-type: none"> <li>- Mini-ITX-Formfaktor</li> <li>- Alle Feste Kondensatordesign</li> </ul>
<b>CPU</b>	<ul style="list-style-type: none"> <li>- Unterstützt Intel® Core™ i7- / i5- / i3-Prozessoren der 3ten und 2ten Generation im LGA1155-Package</li> <li>- Unterstützt Intel® Turbo Boost 2.0-Technologie</li> <li>- Unterstützt freigegebene CPU der K-Serie</li> </ul>
<b>Chipsatz</b>	<ul style="list-style-type: none"> <li>- Intel® H61</li> <li>- Unterstützt Intel® Rapid Start Technology und Smart Connect Technology</li> </ul>
<b>Speicher</b>	<ul style="list-style-type: none"> <li>- Unterstützung von Dual-Kanal-Speichertechnologie</li> <li>- 2 x Steckplätze für DDR3</li> <li>- Unterstützt DDR3 1600/1333/1066 non-ECC, ungepufferter Speicher (DDR3 1600 mit Intel® Ivy Bridge-Prozessor, DDR3 1333 mit Intel® Sandy Bridge-Prozessor)</li> <li>- Max. Kapazität des Systemspeichers: 16GB</li> <li>- Unterstützt Intel® Extreme Memory Profile (XMP) 1.3/1.2 mit Intel® Ivy Bridge-Prozessor</li> </ul>
<b>Erweiterungssteckplätze</b>	<ul style="list-style-type: none"> <li>- 1 x PCI Express 3.0 x16-Steckplatz (PCI-E1 für x16-Modus)</li> <li>* PCIe 3.0 wird nur mit Intel® Ivy Bridge-Prozessor unterstützt. Mit Intel® Sandy Bridge-Prozessor wird nur PCIe 2.0 unterstützt.</li> </ul>
<b>Onboard-VGA</b>	<ul style="list-style-type: none"> <li>* Integrierte Intel® HD-Grafikdarstellungen und die VGA-Ausgänge können nur durch GPU-integrierte Prozessoren unterstützt werden.</li> <li>- Unterstützt hochauflösende integrierte Intel®-Grafiklösungen: Intel® Quick-Sync-Video 2.0, Intel® InTru™ 3D, Intel® Clear-Video-Technik (HD), Intel® Insider™, Intel® HD Graphics 2500/4000 mit Intel® Ivy Bridge-Prozessor</li> <li>- Unterstützt hochauflösende integrierte Intel®-Grafiklösungen: Intel® Quick-Sync-Video, Intel® InTru™ 3D, Intel® Clear-Video-Technik (HD), Intel® HD Graphics 2000/3000, Intel® Advanced Vector Extensions (AVX) mit Intel® Sandy Bridge-Prozessor</li> <li>- Pixel Shader 5.0, DirectX 11 mit Intel® Ivy Bridge-Prozessor, Pixel Shader 4.1, DirectX 10.1 mit Intel® Sandy Bridge-Prozessor</li> <li>- Maximal gemeinsam genutzter Speicher 1760MB mit Intel® Ivy Bridge-Prozessor. Maximal gemeinsam genutzter Speicher 1759MB mit Intel® Sandy Bridge-Prozessor.</li> </ul>

	<ul style="list-style-type: none"> <li>- Doppel-VGA Ausgabe: unterstützt HDMI und D-Sub Ports durch unabhängige Bildschirmanzeige Kontroller</li> <li>- Unterstützt HDMI 1.4a mit einer maximalen Auflösung von 1920 x 1200 bei 60 Hz</li> <li>- Unterstützt D-Sub mit einer maximalen Auflösung von 2048 x 1536 bei 75 Hz</li> <li>- Unterstützt Auto Lip Sync, Deep Color (12bpc), xvYCC und HBR (High Bit Rate-Audio) mit HDMI (kompatibler HDMI-Bildschirm erforderlich)</li> <li>- Unterstützt HDCP-Funktion mit HDMI-Port</li> <li>- Unterstützt 1080p Blu-ray (BD) / HD-DVD-Wiedergabe mit HDMI-Port</li> </ul>
<b>Audio</b>	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- Unterstützt Wake-On-LAN</li> <li>- Unterstützt LAN-Kabelerkennung</li> <li>- Unterstützt energieeffizientes Ethernet 802.3az</li> <li>- Unterstützt PXE</li> </ul>
<b>E/A-Anschlüsse an der Rückseite</b>	I/O Panel <ul style="list-style-type: none"> <li>- 1 x PS/2-Mausanschluss</li> <li>- 1 x PS/2-Tastaturanschluss</li> <li>- 1 x D-Sub port</li> <li>- 1 x HDMI port</li> <li>- 4 x Standard-USB 2.0-Anschlüsse</li> <li>- 1 x RJ-45 LAN Port mit LED (ACT/LINK LED und SPEED LED)</li> <li>- HD Audiobuchse: Audioeingang / Lautsprecher vorne / Mikrofon</li> </ul>
<b>Anschlüsse</b>	<ul style="list-style-type: none"> <li>- 4 x SATA2 3,0 GB/s-Anschlüsse, unterstützen NCQ-, AHCI- und „Hot Plug“ (Hot-Plugging)- Funktionen</li> <li>- 1 x Consumer Infrared-Modul-Header</li> <li>- 1 x HDMI_SPDIF-Anschluss</li> <li>- 1 x Verteiler für Gehäuseeindringversuche</li> <li>- 1 x CPUlüfter-Anschluss (4-pin)</li> <li>- 1 x Gehäuselüfter-Anschluss (3-pin)</li> <li>- 24-pin ATX-Netz-Header</li> <li>- 4-pin anschluss für 12V-ATX-Netzteil</li> <li>- Anschluss für Audio auf der Gehäusevorderseite</li> <li>- 2 x USB 2.0-Anschlüsse (Unterstützung 4 zusätzlicher USB 2.0-Anschlüsse)</li> </ul>



<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 32Mb AMIs Legal BIOS UEFI mit GUI-Unterstützung</li> <li>- Unterstützung für "Plug and Play"</li> <li>- ACPI 1.1-Weckfunktionen</li> <li>- JumperFree-Übertaktungstechnologie</li> <li>- SMBIOS 2.3.1</li> </ul>
<b>CD d'assistance</b>	- Pilotes, utilitaires, logiciel anti-virus (version d'évaluation), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser und Toolbar
<b>Hardware Monitor</b>	<ul style="list-style-type: none"> <li>- Überwachung der CPU-Temperatur</li> <li>- Motherboardtemperaturerkennung</li> <li>- Drehzahlmessung für CPU-Lüfter</li> <li>- Drehzahlmessung für Gehäuselüfter</li> <li>- Geräuscharmer CPU-Lüfter (ermöglicht die automatische Anpassung der Gehäuselüftergeschwindigkeit durch CPU- oder Temperatur)</li> <li>- Mehrstufige Geschwindigkeitsteuerung für CPU-Lüfter</li> <li>- GEHÄUSE OFFEN-Erkennung</li> <li>- Spannungsüberwachung: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>Betriebssysteme</b>	- Unterstützt Microsoft® Windows® 8 / 8 64-Bit / 7 / 7 64-Bit / Vista™ / Vista™ 64-Bit / XP / XP 64-Bit
<b>Zertifizierungen</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- Gemäß Ökodesign-Richtlinie (ErP/EuP) (Stromversorgung gemäß Ökodesign-Richtlinie (ErP/EuP) erforderlich)</li> </ul>

\* Für die ausführliche Produktinformation, besuchen Sie bitte unsere Website:  
<http://www.asrock.com>

## Spécifications

<b>Format</b>	<ul style="list-style-type: none"> <li>- Facteur de forme Mini-ITX</li> <li>- Accessoires de Carte mère</li> </ul>
<b>CPU</b>	<ul style="list-style-type: none"> <li>- Prend en charge les processeurs Intel® Core™ i7 / i5 / i3 2ème et 3ème génération sur socket LGA1155</li> <li>- Prend en charge la technologie Intel® Turbo Boost 2.0</li> <li>- Prise en charge des unités centrales non verrouillées de série K</li> </ul>
<b>Chipsets</b>	<ul style="list-style-type: none"> <li>- Intel® H61</li> <li>- Prend en charge les technologies Intel® Rapid Start et Smart Connect</li> </ul>
<b>Mémoire</b>	<ul style="list-style-type: none"> <li>- Compatible avec la Technologie de Mémoire à Canal Double</li> <li>- 2 x slots DIMM DDR3</li> <li>- Supporter DDR3 1600/1333/1066 non-ECC, sans amortissement mémoire (DDR3 1600 avec CPU Intel® Ivy Bridge, DDR3 1333 avec CPU Intel® Sandy Bridge)</li> <li>- Capacité maxi de mémoire système: 16GB</li> <li>- Prend en charge le profil de mémoire extrême Intel® (XMP) 1.3/1.2 avec processeur Intel® Ivy Bridge CPU</li> </ul>
<b>Slot d'extension</b>	<ul style="list-style-type: none"> <li>- 1 x slot PCI Express 3.0 x16 (PCIe1 @ mode x16)</li> <li>* PCIe 3.0 n'est pris en charge qu'avec le processeur Intel® Ivy Bridge. Avec le processeur Intel® Sandy Bridge, seul PCIe 2.0 est pris en charge.</li> </ul>
<b>VGA sur carte</b>	<ul style="list-style-type: none"> <li>* Intel® HD Graphics avec visuels intégrés (Built-in Visuals) et les sorties VGA sont uniquement pris en charge par les processeurs à GPU intégré.</li> <li>- Supporte Intel® HD Graphics Built-in Visuals: Intel® Quick Sync Video 2.0, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 2500/4000 avec processeur Intel® Ivy Bridge CPU</li> <li>- Supporte Intel® HD Graphics Built-in Visuals: Intel® Quick Sync Video, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® HD Graphics 2000/3000, Intel® Advanced Vector Extensions (AVX) avec processeur Intel® Sandy Bridge CPU</li> <li>- Pixel Shader 5.0, DirectX 11 avec CPU Intel® Ivy Bridge, Pixel Shader 4.1, DirectX 10.1 avec CPU Intel® Sandy Bridge</li> <li>- Mémoire partagée max 1760MB avec processeur Intel® Ivy</li> </ul>

	<p>Bridge CPU. Mémoire partagée max 1759MB avec processeur Intel® Sandy Bridge CPU.</p> <ul style="list-style-type: none"> <li>- Output de VGA Dual: supporter HDMI et D-Sub ports par les contrôleurs de display indépendants</li> <li>- Prend en charge le HDMI 1.4a avec une résolution maximale jusqu'à 1920x1200 @ 60Hz</li> <li>- Prend en charge le D-Sub avec une résolution maximale jusqu'à 2048x1536 @ 75Hz</li> <li>- Prend en charge Lip Sync, Deep Color (12bpc), xvYCC et HBR (High Bit Rate Audio : Audio à haut débit binaire) avec HDMI (Moniteur compatible HDMI requis)</li> <li>- Prise en charge de la fonction HDCP avec port HDMI</li> <li>- Supporter 1080p Blu-ray(BD)/ lecteur de HD-DVD avec port HDMI</li> </ul>
<b>Audio</b>	<ul style="list-style-type: none"> <li>- 5.1 Son haute définition de CH (codec audio Realtek ALC662)</li> </ul>
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- Supporte du Wake-On-LAN</li> <li>- Prise en charge de la détection de câble LAN</li> <li>- Prend en charge la norme Energy Efficient Ethernet (Ethernet à efficacité énergétique) 802.3az</li> <li>- Supporte PXE</li> </ul>
<b>Panneau arrière</b>	<p>I/O Panel</p> <ul style="list-style-type: none"> <li>- 1 x port souris PS/2</li> <li>- 1 x port clavier PS/2</li> <li>- 1 x port D-Sub</li> <li>- 1 x port HDMI</li> <li>- 4 x ports USB 2.0 par défaut</li> <li>- 1 x port LAN RJ-45 avec LED (ACT/LED CLIGNOTANTE et LED VITESSE)</li> <li>- Prise HD Audio: Entrée Ligne / Haut-parleur frontal / Microphone</li> </ul>
<b>Connecteurs</b>	<ul style="list-style-type: none"> <li>- 4 x connecteurs SATA2, prennent en charge un taux de transfert de données pouvant aller jusqu'à 3.0Go/s, supporte NCQ, AHCI et « Hot Plug » (Branche ment à chaud)</li> <li>- 1 x Barrette pour module à infrarouges grand public</li> <li>- 1 x Connecteur HDMI_SPDIF</li> <li>- 1 x Embase d'intrusion châssis</li> <li>- 1 x Connecteur pour ventilateur de CPU (br. 4)</li> </ul>

	<ul style="list-style-type: none"> <li>- 1 x Connecteur pour ventilateur de Châssis (br. 3)</li> <li>- br. 24 connecteur d'alimentation ATX</li> <li>- br. 4 connecteur d'alimentation 12V ATX</li> <li>- Connecteur audio panneau avant</li> <li>- 2 x En-tête USB 2.0 (prendre en charge 4 ports USB 2.0 supplémentaires)</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 32Mb AMI UEFI Legal BIOS avec support GUI</li> <li>- Support du "Plug and Play"</li> <li>- Compatible pour événements de réveil ACPI 1.1</li> <li>- Gestion jumperless</li> <li>- Support SMBIOS 2.3.1</li> </ul>
<b>CD d'assistance</b>	<ul style="list-style-type: none"> <li>- Pilotes, utilitaires, logiciel anti-virus (version d'évaluation), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser et Toolbar</li> </ul>
<b>Surveillance système</b>	<ul style="list-style-type: none"> <li>- Contrôle de la température CPU</li> <li>- Mesure de température de la carte mère</li> <li>- Tachéomètre ventilateur processeur</li> <li>- Tachéomètre ventilateur châssis</li> <li>- Ventilateur silencieux pour unité centrale (permet le réglage automatique de la vitesse du ventilateur pour châssis, selon la température de l'unité centrale)</li> <li>- Commande de ventilateur CPU à plusieurs vitesses</li> <li>- Détection d'OUVERTURE DE BOÎTIER</li> <li>- Monitoring de la tension: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>OS</b>	<ul style="list-style-type: none"> <li>- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit</li> </ul>
<b>Certifications</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- Prêt pour ErP/EuP (alimentation Prêt pour ErP/EuP requise)</li> </ul>

\* Pour de plus amples informations sur les produits, s'il vous plaît visitez notre site web:

<http://www.asrock.com>

## Specifiche

<b>Piattaforma</b>	<ul style="list-style-type: none"> <li>- Mini-ITX Form Factor</li> <li>- Design condensatore compatto</li> </ul>
<b>Processore</b>	<ul style="list-style-type: none"> <li>- Supporta Intel® Core™ i7 / i5 / i3 di 3a e 2a generazione in un pacchetto LGA1155</li> <li>- Supporto della tecnologia Intel® Turbo Boost 2.0</li> <li>- Supporta CPU unlocked serie K</li> </ul>
<b>Chipset</b>	<ul style="list-style-type: none"> <li>- Intel® H61</li> <li>- Supporta tecnologia Intel® Rapid Start Technology e Smart Connect Technology</li> </ul>
<b>Memoria</b>	<ul style="list-style-type: none"> <li>- Supporto tecnologia Dual Channel Memory</li> <li>- 2 x slot DDR3 DIMM</li> <li>- Supporto DDR3 1600/1333/1066 non-ECC, memoria senza buffer (DDR3 1600 con CPU Intel® Ivy Bridge, DDR3 1333 con CPU Intel® Sandy Bridge)</li> <li>- Capacità massima della memoria di sistema: 16GB</li> <li>- Supporto di Intel® XMP (Extreme Memory Profile) 1.3/1.2 con CPU Intel® Ivy Bridge</li> </ul>
<b>Slot di espansione</b>	<ul style="list-style-type: none"> <li>- 1 x Alloggi PCI Express 3.0 x16 (PCI-E1 a modalità x16)</li> <li>* PCIe 3.0 è supportato soltanto con la CPU Intel® Ivy Bridge. Con la CPU Intel® Sandy Bridge, supporta solamente PCIe 2.0.</li> </ul>
<b>VGA su scheda</b>	<ul style="list-style-type: none"> <li>* Le uscite Intel® HD Graphics Built-in Visuals e VGA possono essere supportate solo con processori dotati di GPU integrata.</li> <li>- Supporta Intel® HD Graphics Built-in Visuals: Intel® Quick Sync Video 2.0, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 2500/4000 con CPU Intel® Ivy Bridge</li> <li>- Supporta Intel® HD Graphics Built-in Visuals: Intel® Quick Sync Video, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® HD Graphics 2000/3000, Intel® Advanced Vector Extensions (AVX) con CPU Intel® Sandy Bridge</li> <li>- Pixel Shader 5.0, DirectX 11 con CPU Intel® Ivy Bridge, Pixel Shader 4.1, DirectX 10.1 con CPU Intel® Sandy Bridge</li> <li>- Memoria massima condivisa 1760MB con CPU Intel® Ivy Bridge. Memoria massima condivisa 1759MB con CPU Intel® Sandy Bridge.</li> <li>- Uscita VGA Doppia: supporto porte HDMI e D-Sub tramite verificatore display indipendente</li> </ul>

	<ul style="list-style-type: none"> <li>- Supporta HDMI 1.4a con risoluzione massima fino a 1920x1200 @ 60Hz</li> <li>- Supporta D-Sub con risoluzione massima fino a 2048x1536 @ 75Hz</li> <li>- Supporto delle funzioni Auto Lip Sync, Deep Color (12bpc), xvYCC e HBR (High Bit Rate Audio) con HDMI (è necessario un monitor compatibile HDMI)</li> <li>- Supporto della funzione HDCP con le porte HDMI</li> <li>- Supporto 1080p Blu-ray (BD) / HD-DVD riproduzione con le porte HDMI</li> </ul>
<b>Audio</b>	- 5.1 Audio HD CH (Realtek ALC662 Audio Codec)
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- Supporta Wake-On-LAN</li> <li>- Supporta il rilevamento cavo LAN</li> <li>- Supporto di Energy Efficient Ethernet 802.3az</li> <li>- Supporta PXE</li> </ul>
<b>Pannello posteriore I/O</b>	<p>I/O Panel</p> <ul style="list-style-type: none"> <li>- 1 x porta PS/2 per mouse</li> <li>- 1 x porta PS/2 per tastiera</li> <li>- 1 x porta D-Sub</li> <li>- 1 x porta HDMI</li> <li>- 4 x porte USB 2.0 già integrate</li> <li>- 1 x porte LAN RJ-45 con LED (LED azione/collegamento e LED velocità)</li> <li>- Connettore HD Audio: ingresso linea / cassa frontale / microfono</li> </ul>
<b>Connettori</b>	<ul style="list-style-type: none"> <li>- 4 x connettori SATA2 3.0Go/s, supporta delle funzioni NCQ, AHCI e "Hot Plug"</li> <li>- 1 x Connettore modulo infrarosso consumer</li> <li>- 1 x Header HDMI_SPDIF</li> <li>- 1 x header di intrusione dello chassis</li> <li>- 1 x Connettore CPU ventola (4-pin)</li> <li>- 1 x Connettore Chassis ventola (3-pin)</li> <li>- 24-pin collettore alimentazione ATX</li> <li>- 4-pin connettore ATX 12V</li> <li>- Connettore audio sul pannello frontale</li> <li>- 2 x Collettore USB 2.0 (supporta 4 porte USB 2.0)</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 32Mb AMI UEFI Legal BIOS con interfaccia di supporto</li> <li>- Supporta "Plug and Play"</li> <li>- Compatibile con ACPI 1.1 wake up events</li> </ul>

	<ul style="list-style-type: none"> <li>- Supporta jumperfree</li> <li>- Supporta SMBIOS 2.3.1</li> </ul>
<b>CD di supporto</b>	<ul style="list-style-type: none"> <li>- Driver, Utilità, Software AntiVirus (versione di prova), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser e Toolbar</li> </ul>
<b>Monitoraggio Hardware</b>	<ul style="list-style-type: none"> <li>- Sensore per la temperatura del processore</li> <li>- Sensore temperatura scheda madre</li> <li>- Indicatore di velocità per la ventola del CPU</li> <li>- Indicatore di velocità per la ventola del Chassis</li> <li>- Ventola CPU silenziosa (permette la regolazione automatica della ventola dello chassis in base alla temperatura della CPU madre)</li> <li>- Ventola CPU con controllo di varie velocità</li> <li>- Rilevamento CASE APERTO</li> <li>- Voltaggio: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>Compatibilità SO</b>	<ul style="list-style-type: none"> <li>- Microsoft® Windows® 8 / 8 64 bit / 7 / 7 64 bit / Vista™ / Vista™ 64 bit / XP / XP 64 bit</li> </ul>
<b>Certificazioni</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- Predisposto ErP/EuP (è necessaria l'alimentazione predisposta per il sistema ErP/EuP)</li> </ul>

\* Per ulteriori informazioni, prego visitare il nostro sito internet: <http://www.asrock.com>

## Especificación

<b>Plataforma</b>	<ul style="list-style-type: none"> <li>- Factor forma Mini-ITX</li> <li>- Todo diseño de Capacitor Sólido</li> </ul>
<b>Procesador</b>	<ul style="list-style-type: none"> <li>- Admite procesadores Intel® Core™ i7 / i5 / i3 de la 3ª y 2ª generación en el paquete LGA1155</li> <li>- Admite la tecnología Intel® Turbo Boost 2.0 Technology</li> <li>- Admite procesador desbloqueado de la serie K</li> </ul>
<b>Chipset</b>	<ul style="list-style-type: none"> <li>- Intel® H61</li> <li>- Admite las tecnologías Intel® Rapid Start y Smart Connect</li> </ul>
<b>Memoria</b>	<ul style="list-style-type: none"> <li>- Soporte de Tecnología de Memoria de Doble Canal</li> <li>- 2 x DDR3 DIMM slots</li> <li>- Apoya DDR3 1600/1333/1066 non-ECC, memoria de un-buffered (DDR3 1600 con CPU Intel® Ivy Bridge, DDR3 1333 con CPU Intel® Sandy Bridge)</li> <li>- Máxima capacidad de la memoria del sistema: 16GB</li> <li>- Compatible con Intel® Extreme Memory Profile (XMP) 1.3/1.2 con la CPU Intel® Ivy Bridge</li> </ul>
<b>Ranuras de Expansión</b>	<ul style="list-style-type: none"> <li>- 1 x ranura PCI Express 3.0 x16 (PCI-E1 @ modo x16)</li> <li>* PCIe 3.0 solamente se admite con una CPU Intel® Ivy Bridge. Con una CPU Intel® Sandy Bridge, solamente admite PCIe 2.0.</li> </ul>
<b>VGA OnBoard</b>	<ul style="list-style-type: none"> <li>* Los efectos visuales incorporados con gráficos de alta definición Intel® y las salidas VGA sólo se soportan con procesadores con GPU integrada.</li> <li>- Admite Intel® HD Graphics Built-in Visuals: Intel® Quick Sync Video 2.0, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 2500/4000 con la CPU Intel® Ivy Bridge</li> <li>- Admite Intel® HD Graphics Built-in Visuals: Intel® Quick Sync Video, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® HD Graphics 2000/3000 e Intel® Advanced Vector Extensions (AVX) con la CPU Intel® Sandy Bridge</li> <li>- Pixel Shader 5.0, DirectX 11 con CPU Intel® Ivy Bridge, Pixel Shader 4.1, DirectX 10.1 con CPU Intel® Sandy Bridge</li> <li>- 1760MB de Memoria máxima compartida con la CPU Intel® Ivy Bridge. 1759MB de Memoria máxima compartida con la CPU Intel® Sandy Bridge.</li> <li>- Salida de VGA dual: apoya los puertos de HDMI y de D-Sub por los reguladores independientes de la exhibición</li> <li>- Admite HDMI 1.4a con una resolución máxima de</li> </ul>



	1920x1200 a 60 Hz - Admite D-Sub con una resolución máxima de 2048x1536 a 75 Hz - Admite Sincronización automática entre audio y vídeo, Deep Color (12 bpc), xvYCC y HBR (audio de alta tasa de bits) con HDMI (se necesita un monitor compatible con HDMI) - Admite la función HDCP con puertos HDMI - Apoya la reproducción de Blu-ray de 1080p (BD) / HD-DVD con puertos HDMI
<b>Audio</b>	- Sonido HD de 5.1 Canales (Códec de sonido Realtek ALC662)
<b>LAN</b>	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Soporta Wake-On-LAN - Admite detección de conexión de cable LAN - Compatible con Ethernet 802.3az de bajo consumo energético - Compatible con PXE
<b>Entrada/Salida de Panel Trasero</b>	I/O Panel - 1 x puerto de ratón PS/2 - 1 x puerto de teclado PS/2 - 1 x puerto D-Sub - 1 x puerto HDMI - 4 x puertos USB 2.0 predeterminados - 1 x Puerto LAN RJ-45 con LED (LED de ACCIÓN/ENLACE y LED de VELOCIDAD) - Conexión de audio: Entrada de línea / Altavoz frontal / Micrófono
<b>Conectores</b>	- 4 x conexiones SATA2, admiten una velocidad de transferencia de datos de hasta 3,0Gb/s, soporta NCQ, AHCI y "Conexión en caliente" - 1 x Base de conexiones del módulo de infrarrojos para el consumidor - 1 x cabecera HDMI_SPDIF - 1 x Conector de detección de intrusión en el chasis - 1 x Conector de ventilador de CPU (4-pin) - 1 x Conector de ventilador de chasis (3-pin) - 24-pin cabezal de alimentación ATX - 4-pin conector de ATX 12V power - Conector de audio de panel frontal - 2 x Cabezal USB 2.0 (admite 4 puertos USB 2.0 adicionales)

<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 32Mb BIOS legal UEFI AMI compatible con GUI</li> <li>- Soporta "Plug and Play"</li> <li>- ACPI 1.1 compliance wake up events</li> <li>- Soporta "jumper free"</li> <li>- Soporta SMBIOS 2.3.1</li> </ul>
<b>CD de soporte</b>	<ul style="list-style-type: none"> <li>- Controladores, utilidades, software de antivirus (versión de prueba), Prueba de CyberLink MediaEspresso 6.5, Google Chrome Browser y Toolbar</li> </ul>
<b>Monitor Hardware</b>	<ul style="list-style-type: none"> <li>- Sensibilidad a la temperatura del procesador</li> <li>- Sensibilidad a la temperatura de la placa madre</li> <li>- Taquímetros de los ventiladores del procesador y del CPU</li> <li>- Taquímetros de los ventiladores del procesador y del chasis</li> <li>- Ventilador silencioso del procesador (ajuste automático de la velocidad del ventilador del chasis en función de la temperatura del procesador)</li> <li>- Control de ajuste de la velocidad del ventilador de la CPU</li> <li>- Control de APERTURA DE CARCASA</li> <li>- Monitor de Voltaje: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>OS</b>	<ul style="list-style-type: none"> <li>- En conformidad con Microsoft® Windows® 8 / 8 64 bits / 7 / 7 64 bits / Vista™ / Vista™ 64 bits / XP / XP 64 bits</li> </ul>
<b>Certificaciones</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- Cumple con la directiva ErP/EuP (se requiere una fuente de alimentación que cumpla con la directiva ErP/EuP)</li> </ul>

\* Para más información sobre los productos, por favor visite nuestro sitio web:

<http://www.asrock.com>

## Спецификации

<b>Платформа</b>	<ul style="list-style-type: none"> <li>- форм-фактор Mini-ITX</li> <li>- Весь Твердый Конденсаторный проект</li> </ul>
<b>Процессор</b>	<ul style="list-style-type: none"> <li>- Поддержка процессора Intel® Core™ i7 / i5 / i3 3-го и 2-го поколения с помощью разъема для процессоров LGA 1155</li> <li>- Поддержка технологии Intel® Turbo Boost 2.0</li> <li>- Поддержка разблокированного ЦП серии K</li> </ul>
<b>Набор микросхем</b>	<ul style="list-style-type: none"> <li>- Intel® H61</li> <li>- Поддержка технологии Intel® Rapid Start Technology и Smart Connect Technology</li> </ul>
<b>Память</b>	<ul style="list-style-type: none"> <li>- Поддержка технологии Dual Channel DDR3 Memory Technology</li> <li>- 2 x гнезда DDR3 DIMM</li> <li>- Поддержите DDR3 1600/1333/1066 не- ECC, безбуферная память (DDR3 1600 с процессором Intel® Ivy Bridge, DDR3 1333 с процессором Intel® Sandy Bridge)</li> <li>- Максимальный объем системной памяти: 16 ГБ</li> <li>- поддержка профиля Intel® Extreme Memory Profile (XMP) 1.3/1.2 с помощью процессора Intel® Ivy Bridge</li> </ul>
<b>Гнезда расширения</b>	<ul style="list-style-type: none"> <li>- 1 x PCI Express 3.0 x16 (PCI-E1 в режиме x16)</li> <li>* PCI-E 3.0 поставляется только в комплекте с ЦП Intel® Ivy Bridge. В комплекте с ЦП Intel® Sandy Bridge поставляется только модель PCI-E 2.0.</li> </ul>
<b>Графика</b>	<ul style="list-style-type: none"> <li>* Встроенный видеоадаптер Intel® HD Graphics и выходы VGA поддерживаются только с процессорами, оснащенными интегрированным графическим процессором.</li> <li>- Поддержка функций встроенных видеоадаптеров Intel® HD: Intel® Quick Sync Video 2.0, Intel® InTru™ 3D, технологии Intel® Clear Video HD, Intel® Insider™, Intel® HD Graphics 2500/4000 с помощью процессора Intel® Ivy Bridge</li> <li>- Поддержка функций встроенных видеоадаптеров Intel® HD: Intel® Quick Sync Video, Intel® InTru™ 3D, технологии Intel® Clear Video HD, Intel® HD Graphics 2000/3000, Intel® Advanced Vector Extensions (AVX) с помощью процессора Intel® Sandy Bridge</li> <li>- Pixel Shader 5.0, DirectX 11 с процессором Intel® Ivy Bridge, Pixel Shader 4.1, DirectX 10.1 с процессором Intel® Sandy Bridge</li> <li>- Макс. объем разделяемой памяти 1760Мб с помощью процессора Intel® Ivy Bridge. Макс. объем разделяемой памяти 1759Мб с помощью процессора Intel® Sandy Bridge.</li> <li>- Двойственное VGA выходное устройство: поддерживает HDMI и D-Sub порты через независимый контроллер дисплея</li> <li>- Поддержка HDMI 1.4a с максимальным разрешением до 1920x1200 @ 60 Гц</li> <li>- Поддержка D-Sub с максимальным разрешением до 2048x1536 @ 75 Гц</li> <li>- Поддержка Auto Lip Sync, Deep Color (12 бит на цветовой канал), xvYCC и HBR (High Bit Rate Audio) через HDMI (необходим</li> </ul>

	монитор с разъемом HDMI) - Поддержка функции HDCP через разъемы HDMI - Поддержат Blu-луч 1080p (КОММУТАЦИОННАЯ ДОСКА) / воспроизведение HD-DVD через разъемы HDMI
<b>Аудиосистема</b>	- 5.1 CH HD Аудио HD (Кодер-декодер Аудио Realtek ALC662)
<b>ЛВС</b>	- PCIE x 1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - поддержка Wake-On-LAN - Поддержка определения кабеля ЛВС - Поддержка энергосберегающего интерфейса Ethernet 802.3az - Поддержка PXE
<b>Разъемы ввода-вывода на задней панели</b>	I/O Panel - 1 x порт мыши PS/2 - 1 x порт клавиатуры PS/2 - 1 x D-Sub порт - 1 x HDMI порт - 4 x порта USB 2.0 на задней панели в стандартной конфигурации - Разъем 1 x RJ-45 LAN с светодиодным индикатором (индикатор ACT/LINK и индикатор SPEED) - Соединитель звуковой подсистемы: линейный вход / передняя колонка / микрофон
<b>Колодки и плате</b>	- 4 x разъема SATA2 3,0 Гбит/с, поддержка функций NCQ, AHCI и «горячего подключения» - 1 x Датчик пользовательского инфракрасного модуля - 1 x Колодка HDMI_SPDIF - 1 x разъем датчика открытой крышки - 1 x соединитель CPU FAN (4-контактный) - 1 x соединитель Chassis FAN (3-контактный) - 24-контактный Колодка питания ATX - 4-контактный Разъем ATX 12 В - Аудиоразъем передней панели - 2 x Колодка USB 2.0 (одна колодка для поддержки 4 дополнительных портов USB 2.0)
<b>BIOS</b>	- 32Mb AMI UEFI Legal BIOS с поддержкой графического интерфейса пользователя - поддержка "Plug and Play" - ACPI 1.1, включение по событиям - поддержка режима настройки без перемычек - поддержка SMBIOS 2.3.1
<b>Компактдиск поддержки</b>	- Драйверы, служебные программы, антивирусное программное обеспечение (пробная версия), Пробная версия программы CyberLink MediaEspresso 6.5, Google Chrome Browser и Toolbar
<b>Контроль оборудования</b>	- Датчики температуры процессора - Датчики температуры корпуса - Тахометры вентиляторов CPU FAN - Тахометры вентиляторов Chassis FAN

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	<ul style="list-style-type: none"> <li>- Бесшумный вентилятор ЦП блока (возможность авто матической настройки скорости вентилятора системного блока в соответствии с температурой центрального процессора)</li> <li>- Мультиконтроль скорости вентилятора ЦП</li> <li>- Определение открытой крышки</li> <li>- Контроль напряжения: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>Операцион</b>	- Совместимость с Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Поддержка 64-разрядной версии Vista™ / XP / XP 64-bit
<b>ные системы</b>	- FCC, CE, WHQL
<b>Сертификаты</b>	- Совместимость с ErP/EuP Ready (требуется блок питания совместимый с ErP/EuP)

\* Для детальной информации продукта, пожалуйста посетите наш вебсайт:  
<http://www.asrock.com>

## Especificações

<b>Plataforma</b>	<ul style="list-style-type: none"> <li>- Formato Mini-ITX</li> <li>- Design de condensadores banhados a ouro de alta qualidade</li> </ul>
<b>CPU</b>	<ul style="list-style-type: none"> <li>- Suporta Intel® Core™ i7 / i5 / i3 de 3ª e 2ª geração no pacote LGA1155</li> <li>- Suporta a tecnologia Intel® Turbo Boost 2.0</li> <li>- Suporta K-Series desbloqueado CPU</li> </ul>
<b>Chipsets</b>	<ul style="list-style-type: none"> <li>- Intel® H61</li> <li>- Suporta a tecnologia Rapid Start da Intel® e a tecnologia Smart Connect</li> </ul>
<b>Memória</b>	<ul style="list-style-type: none"> <li>- Suporte à tecnologia de memória de duplo canal</li> <li>- 2 x slots de DDR3 DIMM</li> <li>- Suporte para memória não intermédia DDR3 1600/1333/1066, não ECC (DDR3 1600 com Intel® Ivy Bridge CPU, DDR3 1333 com processadores Intel® Sandy Bridge CPU)</li> <li>- Capacidade máxima de memória do sistema: 16GB</li> <li>- Suporta Extreme Memory Profile (XMP) 1.3/1.2 da Intel® com CPU Ivy Bridge da Intel®</li> </ul>
<b>Slots de Expansão</b>	<ul style="list-style-type: none"> <li>- 1 x slot de PCI Express 3.0 x16 (modo PCIe1 @ x16)</li> <li>* O modo PCIe 3.0 apenas é suportado com a CPU Ivy Bridge da Intel® A CPU Sandy Bridge da Intel® apenas suporta o modo PCIe 2.0.</li> </ul>
<b>VGA integrado</b>	<ul style="list-style-type: none"> <li>* As saídas Intel® HD Graphics Built-in Visuals e VGA são suportadas apenas por processadores com GPU integrada.</li> <li>- Suporta Intel® HD Graphics Embutido Visuals: Intel® Quick Sync Video 2.0, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 2500/4000 com CPU Ivy Bridge da Intel®</li> <li>- Suporta Intel® HD Graphics Embutido Visuals: Intel® Quick Sync Video, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® HD Graphics 2000/3000, Intel® Advanced Vector Extensions (AVX) com CPU Sandy Bridge da Intel®</li> <li>- Pixel Shader 5.0, DirectX 11 com Intel® Ivy Bridge CPU, Pixel Shader 4.1, DirectX 10.1 com processadores Intel® Sandy Bridge CPU</li> <li>- Memória partilhada máxima 1760MB com CPU Ivy Bridge da Intel®. Memória partilhada máxima 1759MB com CPU Sandy Bridge da Intel®.</li> <li>- Porta de saída VGA dupla: suporta portas HDMI e D-Sub através de controladores de visualização independentes</li> </ul>

	<ul style="list-style-type: none"> <li>- Suporta HDMI 1.4a Tecnologia com resolução máxima até 1920x1200 @ 60Hz</li> <li>- Suporta D-Sub com resolução máxima até 2048x1536 @ 75Hz</li> <li>- Suporta as funções Auto Lip Sync (Sincronização automática do som), Deep Color (Profundidade da cor) (12bpc), xvYCC e HBR (áudio de taxa de bits elevada) com HDMI (é necessário um monitor compatível com a norma HDMI)</li> <li>- Suporta função HDCP com porta HDMI</li> <li>- Suporta a norma Blu-ray de alta definição 1080p (BD) / e a reprodução de DVDs de alta definição com porta HDMI</li> </ul>
<b>Áudio</b>	<ul style="list-style-type: none"> <li>- Áudio de alta definição de canal 5.1 (Codec de áudio Realtek ALC662)</li> </ul>
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- Suporta Wake-On-LAN</li> <li>- Suporta Detecção de cabo LAN</li> <li>- Suporta Ethernet com Eficiência Energética 802.3az</li> <li>- Suporta PXE</li> </ul>
<b>Entrada/Saída pelo painel</b>	<p>I/O Panel</p> <ul style="list-style-type: none"> <li>- 1 x porta para mouse PS/2</li> <li>- 1 x porta para teclado PS/2</li> <li>- 1 x porta D-Sub</li> <li>- 1 x porta HDMI</li> <li>- 4 x portas USB 2.0 padrão</li> <li>- 1 x porta LAN RJ-45 com LED (LED ACT/LIG e LED VELOCIDADE)</li> <li>- Ficha de áudio HD: Entrada de linha / Altifalante frontal / Microfone</li> </ul>
<b>Conectores</b>	<ul style="list-style-type: none"> <li>- 4 x conectores SATA2, suporte a taxa de transferência de dados de até 3,0 Gb/s, suporte NCQ, AHCI e "conexão a quente"</li> <li>- 1 x Conector CIR</li> <li>- 1 x Conector HDMI_SPDIF</li> <li>- 1 x Conector de intrusão no chassis</li> <li>- 1 x Conector do ventilador da CPU (4 pinos)</li> <li>- 1 x Conector do ventilador da chassis (3 pinos)</li> <li>- Conector de força do ATX de 24 pinos</li> <li>- Conector ATX 12 V de 4 pinos</li> <li>- Conector Áudio do painel frontal</li> <li>- 2 x cabezal USB 2.0 (suporta 4 portas USB 2.0)</li> </ul>

<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 32Mb BIOS UEFI oficial da AMI com suporte para GUI</li> <li>- Suporta dispositivos "Plug and Play"</li> <li>- ACPI 1.1 atendendo a eventos de "wake up"</li> <li>- Suporta dispositivos sem jumper</li> <li>- Suporte para SMBIOS 2.3.1</li> </ul>
<b>CD de suporte</b>	- Controladores, utilitários, software antivírus (Experimentacao Versao), CyberLink MediaEspresso 6.5 versão de demonstração, Navegador Google Chrome e Barra de Ferramentas
<b>Monitor do HW</b>	<ul style="list-style-type: none"> <li>- Sensores de temperature do procesador</li> <li>- Medição de temperatura da placa-mãe</li> <li>- Tacômetros de ventilador do Processador</li> <li>- Tacômetros de ventilador do chassis</li> <li>- Ventoinha silenciosa para a CPU (Permitir velocidade Chassis Auto-Ajuste de temperatura da CPU)</li> <li>- CPU Fan Controle Multi-Velocidade</li> <li>- Detecção de ABERTURA da CAIXA</li> <li>- Monitoramento de voltagem : +12 V, +5 V, +3.3 V, Vcore</li> </ul>
<b>Sistema Operacional</b>	- Microsoft® Windows® 8 / 8 de 64 bits / 7 / 7 de 64 bits / Vista™ / Vista™ de 64 bits / XP / XP de 64 bits
<b>Certificações</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- "ErP/EuP Ready" (é necessária alimentação eléctrica "ErP/ EuP Ready")</li> </ul>

\* Para informações mais detalhadas por favor visite o nosso sítio Web:

<http://www.asrock.com>



## Özellikler

<b>Platform</b>	<ul style="list-style-type: none"><li>- Mini-ITX Form Faktörü</li><li>- Tüm Katı Kapasitör tasarımı</li></ul>
<b>CPU</b>	<ul style="list-style-type: none"><li>- LGA1155 Paketi'deki 3. ve 2. Nesil Intel® Core™ i7 / i5 / i3'yi destekler</li><li>- Intel® Turbo Boost 2.0 Teknolojisini destekler</li><li>- K-Serisi kilidi kaldırılmış işlemciyi destekler</li></ul>
<b>Yonga seti</b>	<ul style="list-style-type: none"><li>- Intel® H61</li><li>- Intel® Rapid Start Teknolojisini ve Smart Connect Teknolojisi'ni destekler</li></ul>
<b>Bellek</b>	<ul style="list-style-type: none"><li>- Çift Kanallı DDR3 Belleği Teknolojisi</li><li>- 2 x DDR3 DIMM yuva</li><li>- DDR3 1600/1333/1066 ECC olmayan, ara belleksiz bellek (Intel® Ivy Bridge işlemciye sahip DDR3 1600, Intel® Sandy Bridge işlemciye sahip DDR3 1333)</li><li>- Sistem belleğinin maks. kapasitesi: 16 GB</li><li>- Intel® Ivy Bridge İşlemci ile Intel® Extreme Bellek Profilini (XMP)1.3/1.2 destekler</li></ul>
<b>Genişletme Yuvası</b>	<ul style="list-style-type: none"><li>- 1 x PCI Express 3.0 x16 yuva (PCI E1 @ x16 modu)</li><li>* PCIE 3.0, sadece Intel® Ivy Köprü İşlemcisiyle desteklenir. Intel® Sandy Köprü İşlemciyle, sadece PCIE 2.0'ı destekler.</li></ul>
<b>Grafikler</b>	<ul style="list-style-type: none"><li>* Intel® HD Grafik Yerleşik Görselleri ve VGA çıkışları, yalnızca GPU entegre işlemciler tarafından desteklenmektedir.</li><li>- Intel® Ivy Bridge İşlemci ile Intel® HD Graphics Dahili Görselleri: Intel® Hızlı Eşitleme Videosu 2.0, Intel® InTru™ 3D, Intel® Clear Video HD Teknolojisi, Intel® Insider™, Intel® HD Graphics 2500/4000</li><li>- Intel® Sandy Bridge İşlemci ile Intel® HD Graphics Dahili Görselleri: Intel® Hızlı Eşitleme Videosu, Intel® InTru™ 3D, Intel® Clear Video HD Teknolojisi, Intel® HD Graphics 2000/3000, Intel® Gelişmiş Vektör Uzantıları (AVX)</li><li>- Pixel Shader 5.0, Intel® Ivy Bridge işlemciye sahip DirectX 11. Pixel Shader 4.1, Intel® Sandy Bridge işlemciye sahip DirectX 10.1</li><li>- Intel® Ivy Bridge İşlemci ile Maks. paylaşılan bellek 1760 MB. Intel® Sandy Bridge İşlemci ile Maks. paylaşılan bellek 1759 MB.</li><li>- Çift VGA Çıkış: desteği HDMI ve bağımsız görüntü denetleyiciler tarafından D-Sub bağlantı noktaları</li></ul>

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<b>Destek CD'si</b>	- Sürücüler, Yardımcı Programlar, AntiVirüs Yazılımı (Deneme Sürümü), CyberLink MediaEspresso 6.5 Deneme Sürümü, Google Chrome Browser ve Toolbar
<b>Donanım Monitör</b>	- CPU Sıcaklık Duyarlılığı - Kasa Sıcaklık Duyarlılığı - CPU Fan Takometresi - Kasa Fan Takometresi - İşlemci Sessiz Fanı (Kasa Fan Hızı'nın İşlemci sıcaklığı ile Otomatik Ayar'ına izin verir) - CPU Fan Çoklu-Hız Kontrolü - KASA AÇIK algılaması - Voltaj İzleme: +12V, +5V, +3,3V, CPU Vcore
<b>İS</b>	- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit uyumlu
<b>Sertifikalar</b>	- FCC, CE, WHQL - ErP/EuP Hazır (ErP/EuP hazır güç kaynağı gerekli)

\* Ayrıntılı ürün bilgileri için lütfen web sitemizi ziyaret edin: <http://www.asrock.com>

## 설명서

플랫폼	<ul style="list-style-type: none"> <li>- Mini-ITX 폼 팩터</li> <li>- 완전 고체 축전지 디자인</li> </ul>
CPU	<ul style="list-style-type: none"> <li>- LGA1155 패키지에서 3 세대 및 2 세대 Intel® Core™ i7 / i5 / i3 을 지원합니다</li> <li>- Intel® Turbo Boost 2.0 기술 지원</li> <li>- K- 시리즈 잠금 해제 CPU 지원</li> </ul>
칩셋	<ul style="list-style-type: none"> <li>- Intel® H61</li> <li>- Intel® Rapid Start 기술과 Smart Connect 기술을 지원합니다</li> </ul>
메모리	<ul style="list-style-type: none"> <li>- 듀얼 채널 메모리 기술 지원</li> <li>- DDR3 DIMM 슬롯 2 개</li> <li>- DDR3 1600/1333/1066 비-ECC, 언버퍼드 메모리를 지원 (Intel® Ivy Bridge CPU 를 탑재한 DDR3 1600, Intel® Sandy Bridge CPU 를 탑재한 DDR3 1333)</li> <li>- 최대 시스템 메모리 용량 : 16GB</li> <li>- Intel® Ivy Bridge CPU 에서 Intel® 익스트림 메모리 프로파일 (XMP) 1.3/1.2 지원</li> </ul>
확장 슬롯	<ul style="list-style-type: none"> <li>- PCI Express 3.0 x16 슬롯 (x16 모드 의 경우 PCIE1) 1 개</li> <li>* PCIE 3.0 은 Intel® Ivy Bridge CPU 에서만 지원됩니다 .</li> <li>Intel® Sandy Bridge CPU 는 PCIE 2.0 만 지원합니다 .</li> </ul>
온보드 VGA	<ul style="list-style-type: none"> <li>* Intel® HD Graphics 내장 비주얼 및 VGA 출력은 GPU 통합된 프로세서의 경우에만 지원됩니다 .</li> <li>- Intel® Ivy Bridge CPU 에서 Intel® HD 그래픽 내장 비주얼 프로그램 : Intel® Quick Sync Video 2.0, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 2500/4000</li> <li>- Intel® Sandy Bridge CPU 에서 Intel® HD 그래픽 내장 비주얼 프로그램 : Intel® Quick Sync Video, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® HD Graphics 2000/3000, Intel® Advanced Vector Extensions (AVX)</li> <li>- Intel® Ivy Bridge CPU 를 탑재한 DirectX 11, Pixel Shader 5.0.</li> <li>Intel® Sandy Bridge CPU 를 탑재한 DirectX 10.1, Pixel Shader 4.1</li> <li>- Intel® Ivy Bridge CPU 에서 최대 공유 메모리 1760MB. Intel® Sandy Bridge CPU 에서 최대 공유 메모리 1759MB.</li> <li>- 더블 VGA 수출 : HDMI 와 D-Sub 포트 독립 디스플레이 컨트롤러를 지원</li> <li>- 최대 해상도 1920x1200 @ 60Hz 까지 HDMI 1.4a 지원</li> <li>- 최대 해상도 2048x1536 @ 75Hz 까지 D-Sub 지원</li> <li>- 자동 립 싱크 (Auto Lip Sync), 딥 컬러 (Deep Color)(12bpc),</li> </ul>

	xvYCC, HBR(고비트율 오디오), HDMI 지원 (HDMI 호환 모니터 필요) - HDMI 포트를 이용한 HDCP 기능 지원 - HDMI 포트를 이용한 1080p Blu-ray (BD) / HD-DVD 재생을 지원
오디오	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
랜	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - 웨이크 - 온 - 랜 지원 - LAN 케이블 감지 지원 - 절전형 이더넷 802.3az 지원 - PXE 지원
후면판 I/O	I/O Panel - 1 개 PS/2 마우스 포트 - 1 개 PS/2 키보드 포트 - 1 개의 D-Sub 포트 - 1 개의 HDMI 포트 - 4 개디폴트 USB 2.0 포트 - 1 개 LED(ACT/LINK LED 및 SPEED LED) 가 있는 RJ-45 LAN 포트 - 오디오 잭 : 라인 인 / 전방 스피커 / 마이크
온보드 헤더 및 커넥터	기 능 지원 - 소비자용 적외선 모듈 헤더 1 개 - HDMI_SPDIF 헤더 1 개 - 새시 침입 헤더 1 개 - CPU 팬 커넥터 1 개 (4 핀) - 새시 팬 커넥터 1 개 (3 핀) - 24 핀 ATX 전원 헤더 - 4 핀 ATX 12V 파워 콘넥터 - 전면부 오디오 콘넥터 - USB 2.0 헤더 2 개 (4 개의 추가 USB 2.0 포트를 지원하는 헤더 2 개)
BIOS	- 32Mb GUI 지원을 제공하는 AMI UEFI 적합형 BIOS - “플러그 앤 플레이” 지원 - ACPI 1.1 웨이크 - 업 이벤트와의 호환 - 점퍼 프리 지원 - SMBIOS 2.3.1 지원
지원 CD	- 드라이버, 유틸리티, 백신 소프트웨어 (시험판), CyberLink MediaEspresso 6.5 평가판, Google Chrome Browser 및 Toolbar

하드웨어 모니터	<ul style="list-style-type: none"> <li>- CPU 온도 감지</li> <li>- 마더보드 온도 감지</li> <li>- CPU 팬 회전 속도계 : 샤시 ( 케이스 ) 팬 회전 속 도계</li> <li>- 새시 팬 회전 속도계 : 샤시 ( 케이스 ) 팬 회전 속 도계</li> <li>- CPU 저소음 팬 (CPU 온도에 의한 새시 팬속도 자동 조정 가능)</li> <li>- CPU 팬 멀티스피드 컨트롤</li> <li>- 케이스 열림 감지</li> <li>- 전압 감시 기능 : +12V, +5V, +3.3V, Vcore</li> </ul>
OS	- 마이크로 소프트 Windows® 8/8 64 비트 /7/7 64 비트 /Vista™/ Vista™ 64 비트 / XP/XP 64 비트 와 호환
인증서	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- ErP/EuP 지원 (ErP/EuP 지원 전원 공급기가 요구됨 )</li> </ul>

\* 상세한 제품정보는 당사의 웹사이트를 방문할수있습니다 . <http://www.asrock.com>

## 仕様

プラットフォーム	<ul style="list-style-type: none"> <li>- Mini-ITX フォームファクター</li> <li>- 全ソリッド・キャパシター設計</li> </ul>
CPU	<ul style="list-style-type: none"> <li>- LGA1155 パッケージで、第三世代および第二世代 Intel® Core™ i7 / i5 / i3 をサポートします</li> <li>- Intel® Turbo 2.0 ブーストテクノロジーをサポート</li> <li>- K シリーズのアンロック CPU</li> </ul>
チップセット	<ul style="list-style-type: none"> <li>- Intel® H61</li> <li>- Intel® Rapid Start テクノロジーおよび Smart Connect テクノロジーをサポートします</li> </ul>
メモリー	<ul style="list-style-type: none"> <li>- デュアルチャネル DDR3 メモリーテクノロジー</li> <li>- DDR3 DIMM スロット x 2</li> <li>- DDR3 1600/1333/1066 non-ECC, un-buffered メモリーに対応 (Intel® Ivy Bridge CPU を搭載した DDR3 1600、Intel® Sandy Bridge CPU を搭載した DDR3 1333)</li> <li>- システムメモリの最大容量: 16GB</li> <li>- Intel® Ivy Bridge CPU で Intel® Extreme Memory Profile (XMP)1.3/1.2 をサポート</li> </ul>
拡張スロット	<ul style="list-style-type: none"> <li>- 1 x PCI Express 3.0 x16 スロット (PCIe1 @ x16 モード)</li> <li>* PCIe 3.0 は、Intel® Ivy Bridge CPU でのみサポートされます。Intel® Sandy Bridge CPU では、PCIe 2.0 のみをサポートします。</li> </ul>
グラフィック	<ul style="list-style-type: none"> <li>* Intel® HD Graphics Built-in Visuals および VGA 出力に対応するのは、GPU が内蔵されているプロセッサを使用する場合だけです。</li> <li>- Intel® Ivy Bridge CPU で Intel® HD グラフィックス内蔵ビジュアルのサポート: Intel® Quick Sync Video 2.0、Intel® InTru™ 3D、Intel® Clear Video HD Technology、Intel® Insider™、Intel® HD Graphics 2500/4000</li> <li>- Intel® Sandy Bridge CPU で Intel® HD グラフィックス内蔵ビジュアルのサポート: Intel® Quick Sync Video、Intel® InTru™ 3D、Intel® Clear Video HD Technology、Intel® HD Graphics 2000/3000、Intel® Advanced Vector Extensions (AVX)</li> <li>- Intel® Ivy Bridge CPU を搭載した DirectX 11、Pixel Shader 5.0、Intel® Sandy Bridge CPU を搭載した DirectX 10.1、Pixel Shader 4.1。</li> <li>- Intel® Ivy Bridge CPU で 最大の共有メモリ 1760MB。Intel® Sandy Bridge CPU で 最大の共有メモリ 1759MB。</li> <li>- デュアル VGA 出力: 独立型ディスプレイコントローラによ</li> </ul>

	る HDMI および D-Sub ポートサポート - 1920x1200 @ 60Hz の最大解像度で HDMI 1.4a をサポート - 2048x1536 @ 75Hz の最大解像度で D-Sub をサポート - オート・リップシンク、ディープカラー(12bpc)、xvYCC、HBR(High Bit Rate)オーディオ、HDMI (HDMI 準拠モニタが必要)をサポート - HDCP 機能、HDMI ポートをサポート - 1080p Blu-ray (BD) / HD-DVD 再生サポート、HDMI ポートをサポート
オーディオ	- 5.1 CH HD オーディオ (Realtek ALC662 オーディオ Codec)
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Wake-On-LAN をサポート - LAN ケーブル検出をサポート - Energy Efficient Ethernet 802.3az をサポート - PXE をサポート
リアパネル I/O	I/O Panel - PS/2 マウスポート x 1 - PS/2 キーボードポート x 1 - D-Sub ポート x 1 - HDMI ポート x 1 - Ready-to-Use USB 2.0 ポート x 4 - LED(ACT/LINK LED および SPEED LED)付き RJ-45 LAN ポート x 1 - オーディオジャック:入力、前部スピーカー、マイク入力
コネクタ	- 4 x SATA2 3.0Gb/秒コネクタが、NCQ、AHCI および "Hot Plug" (ホットプラグ) 機能 - コンシューマー赤外線モジュールヘッダー x 1 - HDMI_SPDIF ヘッダー x 1 - シャーシ侵入ヘッダー x 1 - CPU ファンコネクタ x 1 (4 ピン) - シャーシファンコネクタ x 1 (3 ピン) - 24 ピン ATX 電源コネクタ - 4 ピン 12V 電源コネクタ - フロントパネルオーディオコネクタ - USB 2.0 ヘッダー (USB 2.0 用 4 ポートをサポート) x 2
BIOS 関連機能	- 32Mb AMI UEFI Legal BIOS(GUI サポート) - プラグ&プレイをサポート - ACPI 1.1 準拠ウェイクアップイベント - jumperfree モードサポート - SMBIOS 2.3.1 サポート



サポート CD	- ドライバ、ユーティリティ、AntiVirus ソフトウェア (試用バージョン)、CyberLink MediaEspresso 6.5 試用版、Google Chrome Browser および Toolbar
モニター	<ul style="list-style-type: none"> <li>- CPU 温度検知</li> <li>- マザーボード温度検知</li> <li>- CPU ファンタコメータ</li> <li>- シャーシファンタコメータ</li> <li>- CPU 静音ファン(CPU 温度によりシャーシファン速度の自動調整が可能)</li> <li>- CPU ファンマルチ速度制御</li> <li>- ケースオープン検出</li> <li>- 電源モニター: +12V, +5V, +3.3V, Vcore</li> </ul>
OS	- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit compliant
認証	<ul style="list-style-type: none"> <li>- FCC, CE, Microsoft® WHQL 認証済み</li> <li>- ErP/EuP 対応(ErP/EuP 対応の電源装置が必要です)</li> </ul>

\* 製品の詳細については、<http://www.asrock.com> を御覧ください。

## 主板规格

架构	<ul style="list-style-type: none"> <li>- Mini-ITX 规格</li> <li>- 全固态电容设计</li> </ul>
处理器	<ul style="list-style-type: none"> <li>- 支持第三代和二代 Intel® Core™ i7 / i5 / i3 处理器 (LGA1155 针脚)</li> <li>- 支持 Intel® Turbo Boost 2.0 技术</li> <li>- 支持 K- 系列解锁的 CPU</li> </ul>
芯片组	<ul style="list-style-type: none"> <li>- Intel® H61</li> <li>- 支持 Intel® 快速启动技术和 Intel® 智能连接技术</li> </ul>
系统内存	<ul style="list-style-type: none"> <li>- 支持双通道 DDR3 内存技术</li> <li>- 配备 2 个 DDR3 DIMM 插槽</li> <li>- 支持 DDR3 1600/1333/1066 non-ECC、un-buffered 内存 (Intel® Ivy Bridge CPU 支持 DDR3 1600, Intel® Sandy Bridge CPU 支持 DDR3 1333 )</li> <li>- 最高支持 16GB 系统容量</li> <li>- 通过 Intel® Ivy Bridge CPU 支持 Intel® Extreme Memory Profile(XMP)1.3/1.2</li> </ul>
扩展插槽	<ul style="list-style-type: none"> <li>- 1 x PCI Express 3.0 x16 插槽 (PCI-E @ x16 模式)</li> <li>- *使用 Intel® Ivy Bridge CPU 方可支持 PCIe 3.0。若使用 Intel® Sandy Bridge CPU, 仅支持 PCIe 2.0。</li> </ul>
板载显卡	<ul style="list-style-type: none"> <li>- * 仅内置 GPU 的处理器可支持 Intel® HD Graphics 内置视觉特性与 VGA 输出。</li> <li>- 通过 Intel® Ivy Bridge CPU 支持 Intel® HD Graphics 内置视觉特性: Intel® Quick Sync Video 2.0、Intel® InTru™ 3D、Intel® Clear Video HD 技术、Intel® Insider™、Intel® HD Graphics 2500/4000</li> <li>- 通过 Intel® Sandy Bridge CPU 支持 Intel® HD Graphics 内置视觉特性: Intel® Quick Sync Video、Intel® InTru™ 3D、Intel® Clear Video HD 技术、Intel® HD Graphics 2000/3000、Intel® Advanced Vector Extensions(AVX)</li> <li>- Intel® Ivy Bridge CPU 支持 Pixel Shader 5.0、DirectX 11 技术。Intel® Sandy Bridge CPU 支持 Pixel Shader 4.1、DirectX 10.1 技术。</li> <li>- 通过 Intel® Ivy Bridge CPU 支持最大共享内存 1760MB。通过 Intel® Sandy Bridge CPU 支持最大共享内存 1759MB。</li> <li>- 双 VGA 输出: 通过独立显示控制器提供 HDMI 和 D-Sub 接口</li> <li>- 支持 HDMI 1.4a, 最高分辨率达 1920x1200 @ 60Hz</li> <li>- 支持 D-Sub, 最高分辨率达 2048x1536 @ 75Hz</li> <li>- 支持 HDMI, 可支持 Auto Lip Sync、Deep Color (12bpc)、xvYCC 与 HBR (高位速音频) (需配备兼容 HDMI 的显示器)</li> </ul>

	<ul style="list-style-type: none"> <li>- 通过 HDMI 接口支持 HDCP 功能</li> <li>- 通过 HDMI 接口可播放 10800 线蓝光光盘 (BD) / HD-DVD 光盘</li> </ul>
音效	<ul style="list-style-type: none"> <li>- 5.1 声道高保真音频 (Realtek ALC662 音频编解码器)</li> </ul>
板载 LAN 功能	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- 支持网路唤醒 (Wake-On-LAN)</li> <li>- 支持网路线侦测功能</li> <li>- 支持 Energy Efficient Ethernet 802.3az</li> <li>- 支持 PXE</li> </ul>
Rear Panel I/O (后面板输入 / 输出接口)	I/O 界面 <ul style="list-style-type: none"> <li>- 1 个 PS/2 鼠标接口</li> <li>- 1 个 PS/2 键盘接口</li> <li>- 1 个 D-Sub 接口</li> <li>- 1 个 HDMI 接口</li> <li>- 4 个可直接使用的 USB 2.0 接口</li> <li>- 1 个 RJ-45 局域网接口与 LED 指示灯 (ACT/LINK LED 和 SPEED LED)</li> <li>- 高保真音频插孔: 音频输入 / 前置喇叭 / 麦克风</li> </ul>
连接头	<ul style="list-style-type: none"> <li>- 4 x SATA2 3.0Gb/s 连接头, 支持 NCQ, AHCI 和热插拔功能</li> <li>- 1 x 消费类红外线模块接头</li> <li>- 1 x HDMI_SPDIF 接头</li> <li>- 1 x 机箱开启警告功能接针</li> <li>- 1 x CPU 风扇接头 (4 针)</li> <li>- 1 x 机箱风扇接头 (3 针)</li> <li>- 24 针 ATX 电源接头</li> <li>- 4 针 12V 电源接头</li> <li>- 前置音频面板接头</li> <li>- 2 x USB 2.0 接口 (可支持 4 个额外的 USB 2.0 接口)</li> </ul>
BIOS	<ul style="list-style-type: none"> <li>- 32Mb AMI UEFI Legal BIOS, 支持 GUI</li> <li>- 支持即插即用 (Plug and Play, PnP)</li> <li>- ACPI 1.1 电源管理</li> <li>- 支持唤醒功能</li> <li>- 支持 jumperfree 免跳线模式</li> </ul>
支持光盘	<ul style="list-style-type: none"> <li>- 驱动程序、工具软件、杀毒软件 (测试版本)、CyberLink MediaEspresso 6.5 试用版、Chrome 谷歌浏览器和工具栏</li> </ul>
硬件监控器	<ul style="list-style-type: none"> <li>- CPU 温度侦测</li> <li>- 主板温度侦测</li> <li>- CPU 风扇转速计</li> <li>- 机箱风扇转速计</li> <li>- CPU 静音风扇 (允许根据 CPU 温度自动调整机箱风扇速度)</li> <li>- CPU 风扇多速控制</li> </ul>

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	<ul style="list-style-type: none"> <li>- 机箱开启侦测</li> <li>- 电压范围: +12V, +5V, +3.3V, 核心电压</li> </ul>
操作系统	<ul style="list-style-type: none"> <li>- Microsoft® Windows® 8/8 64 位元 /7/7 64 位元 /Vista™ / Vista™ 64 位元 /XP/XP 64 位元适用于此主板</li> </ul>
认证	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- 支持 ErP/EuP (需要同时使用支持 ErP/EuP 的电源供应器)</li> </ul>

\* 请参阅华擎网站了解详细的产品信息: <http://www.asrock.com>

## 电子信息产品污染控制标示

依据中国发布的「电子信息产品污染控制管理办法」及 SJ/T 11364-2006「电子信息产品污染控制标示要求」，电子信息产品应进行标示，藉以向消费者揭露产品中含有的有毒有害物质或元素不致发生外泄或突变从而对环境造成污染或对人身、财产造成严重损害的期限。依上述规定，您可于本产品之印刷电路板上看见图一之标示。图一中之数字为产品之环保使用期限。由此可知此主板之环保使用期限为 10 年。



图一

## 有毒有害物质或元素的名称及含量说明

若您欲了解此产品的有毒有害物质或元素的名称及含量说明，请参照以下表格及说明。

部件名称	有害物质或元素					
	铅 (Pb)	镉 (Cd)	汞 (Hg)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板及电子组件	X	O	O	O	O	O
外部信号连接头及线材	X	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 标准规定的限量要求，然该部件仍符合欧盟指令 2002/95/EC 的规范。

备注：此产品所标示之环保使用年限，系指在一般正常使用状况下。

## 主機板規格

架構	<ul style="list-style-type: none"> <li>- Mini-ITX 規格</li> <li>- 全固態電容設計</li> </ul>
處理器	<ul style="list-style-type: none"> <li>- 支援第三代和二代 Intel® Core™ i7 / i5 / i3 處理器 (LGA1155 腳位)</li> <li>- 支援 Intel® Turbo Boost 2.0 技術</li> <li>- 支援 K 系列解除鎖定 CPU</li> </ul>
晶片組	<ul style="list-style-type: none"> <li>- Intel® H61</li> <li>- 支援 Intel® 快速啟動技術和智能連接技術</li> </ul>
系統記憶體	<ul style="list-style-type: none"> <li>- 支援雙通道 DDR3 記憶體技術</li> <li>- 2 個 DDR3 DIMM 插槽</li> <li>- 支援 DDR3 1600/1333/1066 non-ECC、un-buffered 記憶體 (Intel® Ivy Bridge CPU 支援 DDR3 1600，Intel® Sandy Bridge CPU 支援 DDR3 1333)</li> <li>- 最高支援 16GB 系統容量</li> <li>- 透過 Intel® Ivy Bridge CPU 支援 Intel® Extreme Memory Profile(XMP)1.3/1.2</li> </ul>
擴充插槽	<ul style="list-style-type: none"> <li>- 1 x PCI Express 3.0 x16 插槽 (PCI-E1 @ x16 模式)</li> <li>* PCIe 3.0 僅適用 Intel® Ivy Bridge CPU。Intel® Sandy Bridge CPU 僅支援 PCIe 2.0。</li> </ul>
內建顯示	<ul style="list-style-type: none"> <li>* 只有整合 GPU 的處理器才支援 Intel® HD Graphics 內建視覺技術 (Built-in Visuals) 與 VGA 輸出。</li> <li>- 透過 Intel® Ivy Bridge CPU 支援 Intel® HD Graphics 內建視覺技術 (Built-in Visuals)：Intel® Quick Sync Video 2.0、Intel® InTru™ 3D、Intel® Clear Video HD Technology、Intel® Insider™、Intel® HD Graphics 2500/4000</li> <li>- 透過 Intel® Sandy Bridge CPU 支援 Intel® HD Graphics 內建視覺技術 (Built-in Visuals)：Intel® Quick Sync Video、Intel® InTru™ 3D、Intel® Clear Video HD Technology、Intel® HD Graphics 2000/3000、Intel® Advanced Vector Extensions (AVX)</li> <li>- Intel® Ivy Bridge CPU 支援 Pixel Shader 5.0、DirectX 11 技術。Intel® Sandy Bridge CPU 支援 Pixel Shader 4.1、DirectX 10.1 技術。</li> <li>- 透過 Intel® Ivy Bridge CPU 支援最大共享記憶體 1760MB。透過 Intel® Sandy Bridge CPU 支援最大共享記憶體 1759MB。</li> <li>- 雙 VGA 輸出：透過獨立顯示控制器提供 DVI-D 和 D-Sub 接口</li> <li>- 支援 HDMI 1.4a，最高解析度達 1920x1200 @ 60Hz</li> </ul>

	<ul style="list-style-type: none"> <li>- 支援 D-Sub, 最高解析度達 2048x1536 @ 75Hz</li> <li>- 支援 HDMI, 可支援 Auto Lip Sync、Deep Color (12bpc)、xvYCC 與 HBR( 高位元率音效 )( 需具備相容 HDMI 的銀幕 )</li> <li>- HDMI 接口支援 HDCP 功能</li> <li>- HDMI 接口可播放 1080p 藍光光碟 (BD) / HD-DVD 光碟</li> </ul>
音效	<ul style="list-style-type: none"> <li>- 5.1 聲道高清晰音效 (Realtek ALC662 音效編解碼器)</li> </ul>
網路功能	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- 支援網路喚醒 (Wake-On-LAN)</li> <li>- 支援網路線偵測功能</li> <li>- 支援 Energy Efficient Ethernet 802.3az</li> <li>- 支援 PXE</li> </ul>
Rear Panel I/O ( 後背板輸入 / 輸出接口 )	<p>I/O 界面</p> <ul style="list-style-type: none"> <li>- 1 個 PS/2 滑鼠接口</li> <li>- 1 個 PS/2 鍵盤接口</li> <li>- 1 個 D-Sub 接口</li> <li>- 1 個 HDMI 接口</li> <li>- 4 個可直接使用的 USB 2.0 接口</li> <li>- 1 個 RJ-45 區域網接口與 LED 指示燈 (ACT/LINK LED 和 SPEED LED)</li> <li>- 高清晰音效插孔：音效輸入 / 前置喇叭 / 麥克風</li> </ul>
接頭	<ul style="list-style-type: none"> <li>- 4 x SATA2 3.0Gb/s 接頭, 支援 NCQ, AHCI 和熱插拔功能</li> <li>- 1 x 消費性紅外線模組插座</li> <li>- 1 x HDMI_SPDIF 接頭</li> <li>- 1 x 機殼開啟警告功能接頭</li> <li>- 1 x CPU 風扇接頭 (4 針)</li> <li>- 1 x 機箱風扇接頭 (3 針)</li> <li>- 24 針 ATX 電源接頭</li> <li>- 4 針 12V 電源接頭</li> <li>- 前置音效接頭</li> <li>- 2 x USB 2.0 接頭 ( 可支援 4 個額外的 USB 2.0 接口 )</li> </ul>
BIOS	<ul style="list-style-type: none"> <li>- 32Mb AMI UEFI Legal BIOS ( 支援 GUI )</li> <li>- 支援即插即用 (Plug and Play, PnP)</li> <li>- ACPI 1.1 電源管理</li> <li>- 支援喚醒功能</li> <li>- 支援 jumperfree 免跳線模式</li> </ul>
支援光碟	<ul style="list-style-type: none"> <li>- 驅動程式、工具軟體、防毒軟體 ( 試用版本 )、CyberLink MediaEspresso 6.5 試用版、Google Chrome Browser 和 Toolbar</li> </ul>

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硬體監控	<ul style="list-style-type: none"><li>- CPU 溫度偵測</li><li>- 主機板溫度偵測</li><li>- CPU 風扇轉速計</li><li>- 機箱風扇轉速計</li><li>- CPU 靜音風扇（可透過 CPU 溫度自動調節機箱的風扇速度）</li><li>- CPU 風扇多速控制</li><li>- 機殼開啟偵測</li><li>- 電壓範圍：+12V, +5V, +3.3V, 核心電壓</li></ul>
操作系統	<ul style="list-style-type: none"><li>- Microsoft® Windows® 8/8 64 位元 /7/7 64 位元 /Vista™ / Vista™ 64 位元 /XP/XP 64 位元</li></ul>
認證	<ul style="list-style-type: none"><li>- FCC, CE, WHQL</li><li>- 支援 ErP/EuP（需要同時使用支援 ErP/EuP 的電源供應器）</li></ul>

\* 請參閱華擎網站了解詳細的產品訊息：<http://www.asrock.com>



## Spesifikasi

<b>Podium</b>	<ul style="list-style-type: none"> <li>- Faktor Form Mini-ITX</li> <li>- Desain All Solid Capacitor</li> </ul>
<b>CPU</b>	<ul style="list-style-type: none"> <li>- Mendukung Intel® Core™ i7 / i5 / i3 Generasi ke-2 dalam paket LGA1155</li> <li>- Menggunakan Teknologi Intel® Turbo Boost 2.0</li> <li>- Mendukung CPU K-Series jenis “unlocked”</li> </ul>
<b>Grup Chip</b>	<ul style="list-style-type: none"> <li>- Intel® H61</li> <li>- Mendukung Intel® Rapid Start Technology dan Smart Connect Technology</li> </ul>
<b>Ingatan</b>	<ul style="list-style-type: none"> <li>- Teknologi ingatan DDR3 dwisaluran</li> <li>- 2 x Alur DDR3 DIMM</li> <li>- Mendukung memori DDR3 1600/1333/1066 non-ECC yang tidak di-buffer (DDR3 1600 dengan Intel® Ivy Bridge CPU, DDR3 1333 dengan Intel® Sandy Bridge CPU)</li> <li>- Kapasitas paling banyak: 16GB</li> <li>- Mendukung Intel® Extreme Memory Profile (XMP) dengan Intel® Ivy Bridge CPU</li> </ul>
<b>Alur Ekspansi</b>	<ul style="list-style-type: none"> <li>- 1 x slot PCI Express 3.0 x16 (PCIe1 @ x16 mode)</li> <li>* PCIe 3.0 hanya didukung dengan Intel® Ivy Bridge CPU. Dengan Intel® Sandy Bridge CPU, hanya PCIe 2.0 yang didukung.</li> </ul>
<b>Diagram</b>	<ul style="list-style-type: none"> <li>* Intel® HD Graphics Built-in Visual dan output VGA hanya dapat didukung dengan prosesor yang mengintegrasikan GPU.</li> <li>- Mendukung Intel® HD Graphics Built-in Visuals: Intel® Quick Sync Video 2.0, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 2500/4000 dengan Intel® Ivy Bridge CPU</li> <li>- Mendukung Intel® HD Graphics Built-in Visuals: Intel® Quick Sync Video, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® HD Graphics 2000/3000, Intel® Advanced Vector Extensions (AVX) dengan Intel® Sandy Bridge CPU</li> <li>- Pixel Shader 5.0, DirectX 11 dengan Intel® Ivy Bridge CPU, Pixel Shader 4.1, DirectX 10.1 dengan Intel® Sandy Bridge CPU</li> <li>- Ingatan sama Max. 1760MB dengan Intel® Ivy Bridge CPU. Ingatan sama Max. 1759MB dengan Intel® Sandy Bridge CPU.</li> <li>- Output VGA Ganda: mendukung port HDMI dan D-Sub</li> </ul>

	<p>melalui pengontrol tampilan independen</p> <ul style="list-style-type: none"> <li>- Mendukung HDMI 1.4a Technology dengan resolusi maksimal hingga 1920x1200 @ 60Hz</li> <li>- Mendukung D-Sub dengan resolusi maksimal hingga 2048x1536 @ 75Hz</li> <li>- Mendukung Auto Lip Sync, Deep Color (12bpc), xvYCC dan HBR (High Bit Rate Audio) dengan HDMI (memerlukan monitor HDMI yang kompatibel)</li> <li>- Mendukung fungsi HDCP dengan port HDMI</li> <li>- Mendukung pemutaran 1080p Blu-ray (BD) / HD-DVD dengan port HDMI</li> </ul>
<b>Audio</b>	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- Menggunakan Wake-On-LAN</li> <li>- Mendukung Deteksi Kabel LAN</li> <li>- Mendukung Energy Efficient Ethernet 802.3az</li> <li>- Mendukung PXE</li> </ul>
<b>Papan Belakang I/O</b>	<p>I/O Panel</p> <ul style="list-style-type: none"> <li>- 1 x Port Mouse PS/2</li> <li>- 1 x Port Keyboard PS/2</li> <li>- 1 x Port D-Sub</li> <li>- 1 x Port HDMI</li> <li>- 4 x Port USB 2.0 siap-dipakai</li> <li>- 1 x RJ-45 LAN Port LED (ACT/LINK LED dan SPEED LED)</li> <li>- HD Audio Jack: Line in / Penyuaran Depan / mikropon</li> </ul>
<b>Penghubung</b>	<ul style="list-style-type: none"> <li>- 4 x penghubung SATA2 3.0Gb/s, dapat menggunakan NCQ, AHCI dan fungsi "Hot Plug"</li> <li>- 1 x header CIR</li> <li>- 1 x HDMI_SPDIF header</li> <li>- 1 x Chassis Intrusion header</li> <li>- 1 x Penghubung KIPAS CPU (4 pin)</li> <li>- 1 x Penghubung KIPAS casing (3 pin)</li> <li>- Penghubung power 24 pin ATX</li> <li>- Penghubung power 4 pin 12V</li> <li>- Penghubung audio panel dapan</li> <li>- 2 x USB 2.0 header (menggunakan 4 port USB 2.0)</li> </ul>
<b>Ciri-ciri BIOS</b>	<ul style="list-style-type: none"> <li>- 32Mb AMI UEFI Legal BIOS dengan dukungan GUI</li> <li>- Menggunakan "Plug and Play"</li> <li>- ACPI 1.1 Compliance Wake Up Events</li> <li>- Menggunakan jumperfree</li> <li>- Penyokong AMBIOS 2.3.1</li> </ul>

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<b>Sokongan CD</b>	- Driver, Utilitas, Perangkat Lunak Antivirus (Versi Percobaan), CyberLink MediaEspresso 6.5 Versi Percobaan, Google Chrome Browser dan Toolbar
<b>Penjaga Hardware</b>	<ul style="list-style-type: none"> <li>- Perasa Suhu CPU</li> <li>- Perasa Suhu Casis</li> <li>- Pengukur Kipas CPU</li> <li>- Pengukur Kipas Casis</li> <li>- Kipas CPU Senyap (Kecepatan Kipas Sasis Otomatis Disesuaikan Berdasarkan Temperatur CPU)</li> <li>- Kontrol Multi-Kecepatan Kipas CPU</li> <li>- Deteksi CASING TERBUKA</li> <li>- Penjagaan voltasi: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>OS</b>	- dapat digunakan Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit
<b>Sertifikasi</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- ErP/EuP Ready (memerlukan catu daya ErP/EuP ready)</li> </ul>

\* Untuk informasi rinci, silakan kunjungi website kami: <http://www.asrock.com>